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ABSTRACT

This report attempts to relate the first year's experience of the Kentucky, Ohio, Michigan Regional Medical Library (KOMRML). Ten academic institutions in Kentucky, Ohio, and Michigan (KOM) are supporting an agreement signed on May 1, 1968 to form an organization with the general objective to work toward making the resources of each of the participating institutions' health sciences library accessible to KOM. Although there is as yet no way to measure the success of the KOMRML decentralized approach, the regional network is functioning. An organization has been formed encompassing a geographic region 1,000 miles long by almost 500 miles wide that includes nearly 10% of the nation's health professionals. KOMRML is serving as a mechanism for responsible institutions to contribute to national goals. (MF)

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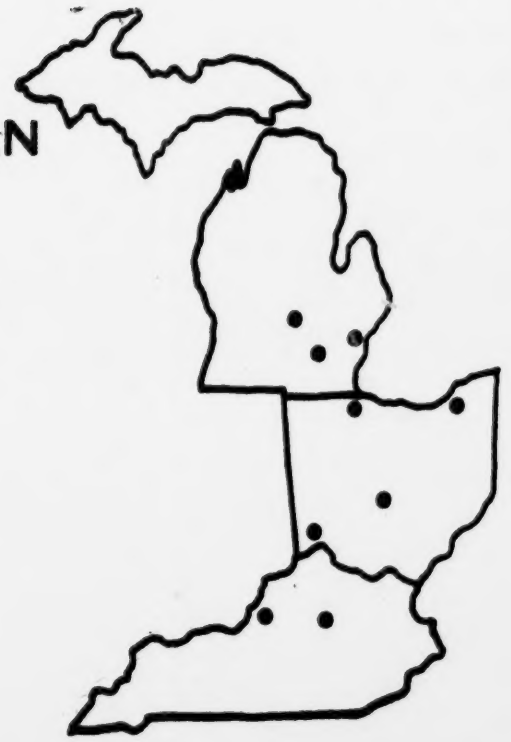

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KOMRML,
The First Year's Experience*

by
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A characteristic of civilization is the constant creation and dissolution of centralized administrative organizations which are expected by those who do the building and dissolving to better accomplish the objectives of a society at a particular time. There is no identifiable sphere of civilization, from family organization to vast political empires, which can ignore the ineluctable workings of social entropy. Libraries are subject to the same kinds of social manipulation as other institutions. The efforts to "regionalize" libraries in the United States began almost 100 years ago through

(i) the creation of state libraries,

(ii) the fostering of an ethic of cooperation among separately administered libraries by professional library associations,

(iii) the leadership of large libraries, particularly federal libraries, to standardize bibliographic techniques and to maintain bibliographic control of the literature with the publication of bibliographic data, and

(iv) the provision of direct support with state and federal funds for demonstrated (or projected) attempts by libraries to consolidate and to expand.

The Medical Library Assistance Act of 1965 provided a federal sanction for the reorganization of existing medical libraries to improve themselves individually and collectively. The Regional Medical Library (RML) program is, for medical libraries, an effort at social engineering that, while not unique in concept, is consistent with other programs that have been promulgated for regionalization of health care, research, and education institutions. Why separate legislation is needed for medical libraries when other local and national library programs are directed toward accomplishing the same general objectives might be rationalized by two general statements. First, the scholarship and practice of the health professions has evolved in our society into institutions with commitments, legal rights and privileges, and an ethic that is recognizably distinct from other institutions. Libraries, to service this massive segment of society, must respond to the qualities and conditions that make the health industry unique. Operationally, the techniques used in medical libraries are no different from other libraries, but because of their environmental setting the immediate and long term objectives of service do not easily fit into the administrative structure of public, academic, or other specialized libraries. Whether this separateness should be accentuated, or whether medical libraries should be more closely related to other library organizations is a matter that the RML program will have to decide as it develops. Second, the National Library of Medicine (NLM) has maintained a national and international leadership role in the bibliographic control of medical

literature as well as provided standards of technical and service performance for the nation's medical libraries. With this leadership role clearly established, it is not surprising that Congress should extend the NLM's role by authorizing it to develop a national "system" of medical library services.

This paper is an attempt to relate the first year's experience of the Kentucky, Ohio, Michigan Regional Medical Library (KOMRML). (1) The national RML program does not as yet have its objectives and goals defined other than in abstract and general terms; KOMRML had the task of relating itself to these "experimental" goals while at the same time defining its own objectives in relation to the institutional and social constraints operating within its region. In a situation where policies, because of administrative or operational exigencies, change before they can be tested, a paper reporting one year's experience must reflect this lack of goal definition and resultant operational confusion. In order to communicate this situation a verbal structure has to be devised which has no referent structure. Arbitrary groupings of events and problems have to be made which distort values and details of operation. The aim of this report is to try to present a perspective of KOMRML at a particular point in time and to provide a basis for evaluation. The perspective obviously has to be the writer's. Another reviewer might find quite a different set of facts and feelings to report which would result in a different emphasis. This apology is also an appeal for help and guidance to all who are interested to correct and amend KOMRML's policies and practices. The RML program would appear to have the potentiality to improve health care and is therefore a national social resource. We must have good RMLs and certainly all participating libraries in KOMRML want it to be a quality institution.

ADMINISTRATIVE ORGANIZATION

The factors which were considered in the formation of the existing KOMRML administrative structure were discussed in a previously published report in this series. (2) To summarize: the ten academic institutions in Kentucky, Ohio, and Michigan (KOM) which support resource health science libraries signed an agreement on 1 May 1968 to form an organization with the general objective to work toward making the resources of each of the participating institution's health sciences library accessible to KOM. A Central Office was established (i) to administer funds which could be applied to KOM services and operations, (ii) to administer agreed upon policies through the issuance of standardized procedures for participating libraries to follow, (iii) to carry out monitoring and evaluative procedures for KOMRML, and (iv) to serve as the clearing house or communication node for KOMRML and to institutions, agencies, and individuals within KOM and outside the region. Each participating institution

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(1) NLM under its grant program for the support of RMLs requires that administrative reports be submitted on a fiscal year basis. Since KOMRML's grant year runs from January to December, this paper relates to KOMRML's 1969 experiences.

(2) Kentucky, Ohio, Michigan Regional Medical Program, a discussion of its formation. Kentucky, Ohio, Michigan Regional Medical Library, Papers and Reports No. 3. Detroit, April 1969.

appointed representatives to an Executive Committee which is empowered to establish policy. A subcommittee of the Executive Committee, the Administrative Committee, serves to work out the details of operating KOMRML. This structure can be easily shown diagrammatically, but because an administrative structure can be diagrammed does not necessarily reveal how the separate units relate and what the mechanism is that makes it function. Those who have accepted the challenge of creating KOMRML will admit with pride, tempered it is hoped with humility, that within a year a regional network is functioning. This can be demonstrated by tangible accomplishments that can be quantified. More important, an organization has been formed encompassing a geographic region 1,000 miles long by almost 500 miles wide that includes nearly 10% of the nation's health professionals. KOMRML serves as a mechanism for responsible institutions to contribute to national goals. This organization is able to meet challenges (and even threats) both from within and outside the region. A mechanism exists for negotiating, compromising, and resolving problems. The following discussion on the mechanisms employed which has provided KOMRML with the means to experiment and after a year to attain a sense of accomplishment is in part a description, a subjective assessment of strength and weakness of specific techniques and an expression of attitude development.

COMMUNICATION AND DECISION MAKING

For 10 institutions, each with its own traditions and policies, to coordinate their activities so that each operates at a comparable level of performance and so that each has a sense of participation in the continued development of a multistate organization requires that all participants (i) have knowledge of the strengths and abilities of all others, (ii) be aware of national policies relevant to RML operations, and (iii) be cognizant of accomplishments and inadequacies as they occur. Above all, the recipients of service must be informed of their privileges and responsibilities with respect to KOMRML. Several communication techniques have been employed.

1. Executive and Administrative Memoranda. Every bureaucracy generates records of its operation which serve as a basis to organize information and data for decision. All documents that contain information relevant to any part of the operation of KOMRML are duplicated and distributed to all participating libraries with a covering memorandum. These documents may be letters, reports of progress, fiscal reports, minutes of meetings, working papers, etc. They may originate from any source from within or outside KOMRML. The guiding rule of what should be distributed is that each participating library has all documents on file so that should the decision be made to move the Central Office to another participating library than Wayne State University, the relevant information and documents are immediately available to carry on the Central Office functions. In 1969, 36 Executive memos and 34 Administrative memos were distributed. The former were to include any documents relative to policies, operational reports, and general information. The Administrative memo was designed to include the documents relevant to any actions or procedures that were to be implemented by participating libraries. This neat division

was not always easy to make; only toward the end of the year was it possible to begin to sort out what is policy and what is operational. While this inability to make distinctions may demonstrate a lack of perceptiveness on the part of the Central Office, it also demonstrates a general situation about RMLs -- objectives, expectations, and operations are interrelated; what at one point may appear to be a simple operational routine may turn out to involve major negotiations.

2. The Working Paper. Charged with establishing an interstate network based upon the resources and capabilities of 10 separate institutions compelled KOMRML to examine itself to determine what it could do and how it can bring about change. Working papers were written even before KOMRML was formally organized. Thirteen working papers were produced by the end of 1969 covering such topics as possible interpretation of the authorizing legislation, procedures on document delivery services, monitoring of service, exploration of expansion of services, etc. Besides the Central Office, four participating libraries have produced parts or all of a working paper. These papers are not meant to be polished presentations. However, each paper does try to include the following:

(i) A collection of all known data information, and opinion relative to the topic of the paper;

(ii) An analysis of these data organized into a set (or sets) of assumptions or working principles;

(iii) Possible alternatives for decision and action; to the extent possible factors of efficiency, cost, effectiveness, and viability are considered;

(iv) Recommendations for KOMRML policy and procedures.

The working paper is distributed to the Executive Committee who may add amendments or addenda. These are also distributed. The content of the paper is then discussed at the next meeting of the Executive Committee, or in some instances only the Administrative Committee. These discussions may produce several results.

(i) The arguments and recommendations serve as a basis for collective negotiation; that is, each participating library must be convinced that it can accept the responsibilities that are described.

(ii) If agreement is reached, the working paper (and minutes of the meeting) serve as a context for the Central Office and participating libraries

to make the day-to-day decisions that have to be made for a continuing operation; if a problem arises which does not seem to be covered by the discussions, a decision can be temporized and the "problem" brought to the attention of the Administrative Committee.

(iii) As in all committees, the working paper when discussed may reveal (a) that there is insufficient information to make a decision, requiring further exploration and study, (b) that the recommendations are unrealistic for the resources available, and (c) that action must be postponed until some future time.

Although the working papers take a great deal of time to produce and many man hours of reading time by the Executive Committee as well as the staff time of participating libraries, there does not appear to be any more expeditious way for 10 institutions to find common grounds for agreement. One aspect of this communication mechanism must be noted. The time involved in writing, reviewing, and discussing the working papers (except for part of the Central Office time) is contributed time to KOMRML. The only return for the individuals' and their institutions' contributions is a sense that they are working toward improving their own institutions' capabilities to accomplish worth-while objectives. The motivations to undertake this effort cannot be ascribed to anticipation of some future monetary reward. To indulge in a little moralizing -- the "working paper" as a communication technique can only work if the individuals concerned have a professional dedication and commitment to identify problems and search for solutions.

3. Procedure Manual. After the Executive or Administrative Committee has agreed upon the actions to be taken by KOMRML, the Committees' deliberations must be translated into operational routines. All KOMRML services should be provided equally and with the same dependability to all users. No two libraries have the same complement of staff, nor are there any two libraries that have the same job descriptions or staff assignments. Further, 1969 was a year for a great deal of staff turnover in several libraries. A manual of procedures has been written with means for updating. The manual is less a "how-to-do-it" than a description of the component actions that must be undertaken to accomplish KOMRML services. The manual not only includes instructions for participating libraries, but also users of KOMRML services. No bureaucratic organization has ever been able to produce a manual of procedures that can cover all possible contingencies; however, considering the magnitude of the number of transactions and procedures involved and the number of individuals required to process them, very little deviation in standards of performance has been encountered during the year. This may be due more to the dedication of library staff than the quality of the procedure manual.

4. Executive and Administrative Committee Meetings. The NLM policy statement on RMLs published in 1969,(3) states that each RML should have an advisory body composed of members from appropriate health agencies and associations. Strictly speaking, KOMRML has not as yet complied with this policy regulation. The justification for this non-compliance is that a RML composed of 10 separate institutions required a period for experimentation and adjustment. Indeed, interested agencies and associations could express needs, wants, and expectations of a RML, but a more active "governing" body was desiderate. Individuals who could speak for and commit participating institutions must be part of the administrative structure. Further, it was felt that there were so many unmet needs for library service in KOM that participating libraries would not, at least in the first two years, be able to meet the demands. This expectation, discussed later, has been realized. Other means could be used to monitor and evaluate the KOMRML operation than the expression of a few, even if representative, people on an advisory board. Although not formalized through KOMRML, six of the 10 participating libraries have established under various auspices unofficial health science library groups which hold meetings through the year through which KOMRML services could be explained and feedback obtained on the service. *

The function and actions of the Executive and Administrative Committees have already been discussed. Once more it must be stressed that all members have contributed their time and effort without cost to KOMRML.

5. Leadership. Ideas, concepts, and procedures recorded as working papers, memos, letters, and manuals are abstractions. Rendering abstractions into tangible manifestations of library service requires people. Even though there are some who believe in the myth that social consensus is arrived at by the adding up of votes which, once counted, produces a majority opinion that results in unified action, such a "democratic" procedure only works if there are individuals who can be identified as leaders. Individuals are required who can persuade and convince groups toward common goals, who can create new objectives in conflicting situations, and who have the courage to make decisions. The organization of KOMRML has been fortunate. A situation in which 10 academic institutions with a long history of independence and competition arrive at a consensus for action is certainly due in part to the quality of leadership available to KOMRML. First, the Executive Committee is a policy-making body. The Chairman of the Executive Committee has been able to keep regional goals and national concerns as guidelines for decisions, thus avoiding interinstitutional bickering and search for dominance. Equally important is the leadership of each of the directors of the participating libraries. Responsibility for providing regional services rests in the hands of the participating libraries. Several results of this leadership should be noted. The only visible service that KOM users can recognize as arising out of KOMRML is a referral

(3) National Library of Medicine. Regional Medical Library Program; Information and Policy Statement. Washington, January 1969.

* For a fuller discussion of the rationale of the function, see KOMRML Papers and Reports No. 3.

service, To get such a system operating on a three state area dependably and consistently has required librarians to persuade and explain values and objectives not only to their library staffs, but also to their administrative superiors. One result which is not measurable as a consequence of KOMRML is the demonstration of leadership within each KOM service area. Meetings have been held, plans formulated and programs begun from each participating library that support KOMRML policies. The librarians have the respect within their own communities which permits them to develop their own institutions. A measure that is frequently used to indicate the health of a bureaucratic organization is the amount of participation each component unit has in decision making and the individual responsibility that is accepted. The term "participating institution" in the original agreement forming KOMRML was a mere accident of phraseology, but it has come to have a specific meaning that has provided motivation and a sense of identity.

6. Publicity. The above discussion on KOMRML's communication and decision making procedures is all centered around a bureaucratic organization of 10 participating institutions. KOMRML is designed to provide backup services. Obviously, individuals and institutions must be informed of these services to use them. The announcement of the grant award received good press coverage throughout KOM, both in newspapers and state medical and library publications.

Institutions. Because of the decentralization of KOMRML in which each participating library is responsible for providing services to a geographic area, all libraries of KOM had to be informed which participating library was their library of first recourse. From the records of each participating library and from reference sources, the institutions supporting any health related activity were identified. An announcement of the establishment and policies of KOMRML was sent to all institutions as well as the procedures and regulations for KOMRML's document delivery service. During the past year the only biomedical institutions asking for KOMRML services which were not on the original announcement list were five osteopathic hospitals. Some 30 other institutional libraries have requested KOMRML services which had not been informed of the establishment of KOMRML. These institutions are public libraries, public school systems, industrial libraries, and junior colleges. These institutions, which were not recognized originally as having health related activities, are informed of KOMRML policies and procedures when they contact KOMRML or are referred to one of the participating libraries.

The following table shows the number of institutions contacted according to functional and organizational categories and the number which have utilized KOMRML document delivery services.

Table 1

Number of Institutions Identified in KOMRML with Need for Access to Biomedical Literature and the Number Which Have Requested Interlibrary Loan Service in 1969

Type of Institution	No. of Inst. Identified	% of Total Inst.	No. of Inst. Requesting Service	% of Total Inst.	% of Total Inst. Requesting Service	No. of Inst. which have not Requested Service	% of Total Inst.
Hospitals	670	62	196	18	43	474	44
Industry/Commerce	126	12	91	9	20	35	3
Government Organizations (Other than hospital)	35	3	31	3	7	4	<1
Educational Institutions	197	18	100	9	22	97	9
Foundations	15	2	9	1	2	6	1
Professional Societies	4	<1	4	<1	<1	-	-
Public Libraries *	25	2	27	2	6	-	-
Total	1072		458			616	

* Only selected public libraries were informed of KOMRML services; not all those informed actually used KOMRML document delivery services.

Certainly, the institutional publicity of the activity of KOMRML has been effective in that relatively few biomedical institutions are being identified which are capable of utilizing KOMRML document delivery services which are not doing so. A more important matter is the number of institutions which have not responded. Is it that they do not have the facilities and personnel to operate within KOMRML's bureaucracy? If this is the case, no amount of publicity of KOMRML's services will increase the use of the services. A different method of contacting these institutions may be necessary. The data so far collected on the biomedical institutions of KOMRML may reveal specific methods to promote a new advertising campaign in 1970. The one element that should be noted is that 43% of all interlibrary loan activity is with hospitals. Nevertheless, this activity was with only 30% of the region's hospitals. Although one-half the educational institutions contacted did not utilize KOMRML document delivery services, this does not appear to be as serious a problem in establishing access to KOMRML resources as the fact that there are 70% of the region's hospitals which seemingly have demonstrated no need for supportive document services.

Individuals. The Medical Library Assistance Act states that supportive library services should be provided to all health professionals. As already discussed, not all biomedical institutions have utilized KOMRML's supportive services. How are the individuals in these institutions to be made aware that access to KOMRML resources is possible? Further, what about those biomedical professionals who have no institutional affiliation? While this latter group includes but very few physicians and nurses, this group does include nearly all dentists, the dental paraprofessionals, veterinarians, optometrists, podiatrists, and pharmacists. It would be possible for KOMRML to develop an address list of these individuals from published directories and telephone books to send out an announcement, but such an effort would be way beyond the present staff's time. The more important question is what use such a publicity would serve. If only a few hundred of these individuals were to respond by requesting document service, KOMRML would probably not have been able to cope with the requests because:

1. All participating libraries are organized to service a restricted clientele, those associated with their parent institutions and more recently on an interinstitutional basis through interlibrary loan.

2. Individuals without access to bibliographic instruments would have to make requests in general statements, not within the usual interlibrary loan procedure; untangling and evaluating such requests require a great deal of a professional reference librarian's time; such personnel time not available to KOMRML.

From past experience it is obvious that even if it were possible to inform individuals that KOMRML services could be used directly by individuals,

practically no participating library is equipped to deal with large numbers of individuals over a large geographic area. This in no way denies that these individuals should have access to the scholarly record of biomedicine. Some other institutional means must be devised than presently exists. Because of the importance of this situation it will be discussed later, but the rationale underlying KOMRML's reluctance to undertake publicity to individuals is (i) that insufficient information is available to predict quantitatively the consequences of such a publicity program and (ii) that from past experience it is known that individual library service given over a wide area without careful planning results in frustrated users. While it may appear cowardly to avoid dealing with an important information dissemination problem, it is also foolhardy and a waste of money to proceed to establish or try to operate a program which cannot be undertaken dependably.

Formal and Informal Meetings. Long before the formation of KOMRML two semi-formal organizations of health science libraries existed, one in Cleveland and the other in Detroit. During the time of the development of KOMRML two additional such organizations were created, one in northwestern Ohio and the other in Kentucky and southwestern Ohio. These four agencies have membership involving six of the nine service areas of KOMRML. The meetings these agencies hold may be as many as four or five per year. The meetings may be short workshops, seminars on mutual library problems, or conferences. Since each of these agencies includes one or more of the participating libraries as members, not only representation but leadership for its continuance is provided from KOMRML participating libraries. Since all policies and developments of KOMRML are immediately available to all participating libraries, pertinent information is conveyed through these agencies.

The three KOMRML service areas without such biomedical library agencies include the least populated part of KOM. Whether such agencies can be formed under Regional Medical Program auspices or through other means will have to be investigated.

Other Means of Publicity: Exhibits and Newsletters. Exhibits prepared by participating libraries without KOMRML funding which promoted KOMRML were displayed at the Ohio State Medical Association and the Kentucky Hospital Association annual convention. To the writer's knowledge no study has been done on the publicity value of booths at medical conventions to promote library service. However, those who manned these booths report, albeit subjectively, it was worth the effort and time. It would appear that KOMRML should support and participate in this kind of library promotion, unless it can be demonstrated that it is of little value.

One of the common techniques of an organization to inform its constituency of its activities is to publish a newsletter. Because of the elaborate distribution mechanisms for working papers, reports, memos, procedures, and correspondence, the task of summarizing this information into a newsletter would appear to be a simple matter. The decision to postpone such an enterprise is based on the facts that:

(i) The existing communication procedures and publicity program appears to provide information to the individuals who need to know;

(ii) Additional publicity could create demands beyond the ability of KOMRML to respond;

(iii) KOMRML's activities, by themselves, are but a small part of the extramural activity of participating libraries, and until these could be included in a KOMRML newsletter, it would merely be an advertising medium for KOMRML and not informative of library services available to the region;

(iv) With the restriction of funds, the cost of producing a newsletter would reduce funds for other services.

As KOMRML becomes more stabilized, the creation of a newsletter may become an important publicity technique.

RESOURCES

As already noted, RMLs are an experiment in social legislation. The role of an RML among our existing biomedical social institutions is yet undefined. To find methods to evaluate its functioning is a frustrating exercise in committee discussions. At this stage of development, more can be said about what a RML cannot be than what it is to do. The first negative "principle" is that a RML is something other than the mere expansion of service of a resource library to its primary clientele. Different sets of rules, different kinds of quality control, and different orders of dependability must apply for RML services from that which may be used for a resource library's primary clientele. The simple hierarchical relationship of medical libraries as diagramed in Figure 1 which seems to lay behind the concept of creating RMLs does not take into account many operating factors in the scientific communication system. Although several perspectives may be taken to try to explain the organizational difficulties inherent in RML services, two views will be discussed which might be considered analogous to Bohr's principle of complementarity: (i) the inability to define the scope or limits of biomedical information and (ii) the redundancy (and competition) to service similar groups by different agencies.

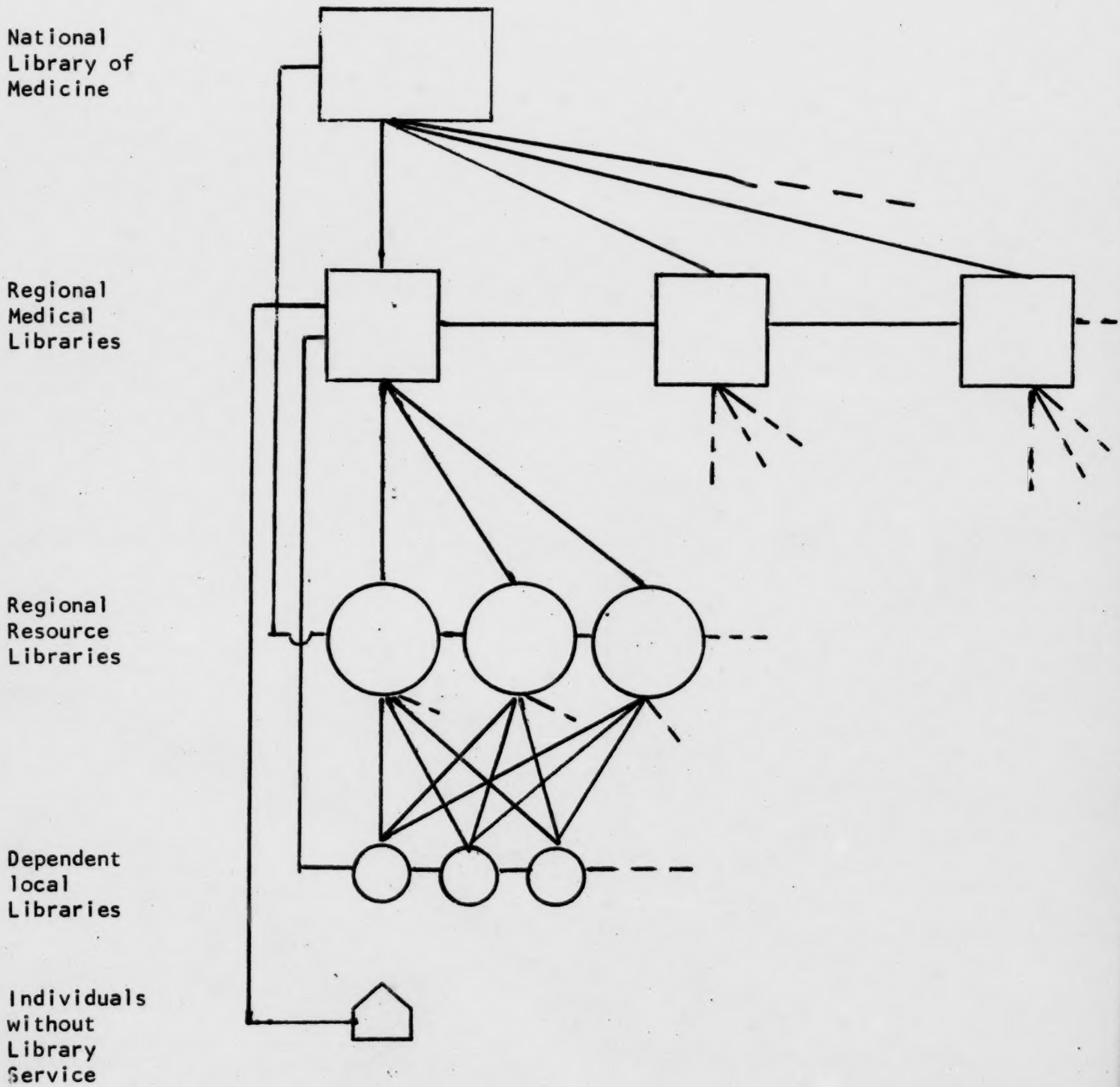
Library Resources

During the development of KOMRML it was early recognized that although KOM possessed 10 creditable semi-public biomedical resource libraries, no one of the 10 possessed all the qualities which would make it possible to function as a "complete" regional library as shown in Figure 1. The only alternative appeared to be to organize a method of access to all the existing biomedical library resources of the region. This maneuver side-steps completely the concept of a centralized regional library -- local resource libraries then become the RML.

This situation raises as yet unanswerable questions. What constitutes biomedical literature? Each of the 10 participating libraries has organized its biomedical institutional library organization to match the

Figure 1

Possible
Hierarchial Arrangement
of Libraries and Library Services Under the
RML Program



growth and politics of its educational programs. As a result, combinations of collections exist that defy rational explanation; for example, a nursing and pharmacy collection is housed in a science library that is geographically and administratively separated from main medical library; or, medical collections are housed physically in the same building as education and psychology collections, and are, therefore, as equally accessible for RML distribution. Under a centralized system with a large resource library requests made for material which it does not own can be out-of-scope, or simply unavailable. If one takes the position that anyone with a legitimate request for health related information should be supplied a requested document, then the problem arises, what is health related? Figure 2 is reproduced here to indicate the complex nature of making such definitions when we do not have institutional collections to match the interest of scientists, educators, and researchers. The explosion of knowledge cutting across discipline lines has been remarked upon in many articles. Figure 2, prepared by Rushmer and Huntsman, both bioengineers, reveals that they apparently are unaware that the organization of health care has already exploded into economics, sociology, political science, law, anthropology, and other major disciplines. They fail to delineate such disciplines as geography and ecology as being health related.

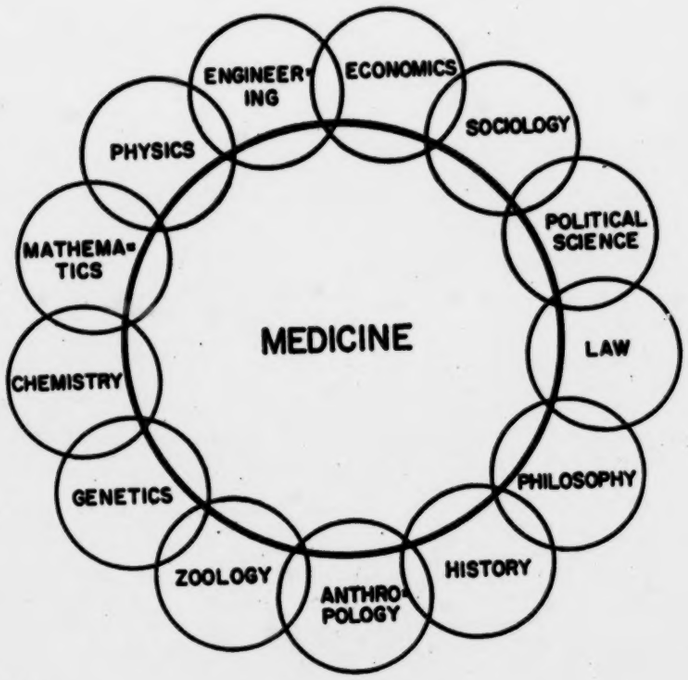
Insofar as KOMRML is concerned, this problem of definition may be alleviated somewhat when the national data bank of biomedical serials is established and KOMRML identifies its holdings against this data bank. As will be discussed below, this still will present problems since the 10 participating libraries probably do not supplement one another as much as might be expected. The one lesson that has been relearned with a vengeance during the first year's operation of KOMRML is that one academic medical library, or a group of academic medical libraries, are inadequate to meet the document needs of a region.

Automated Retrieval

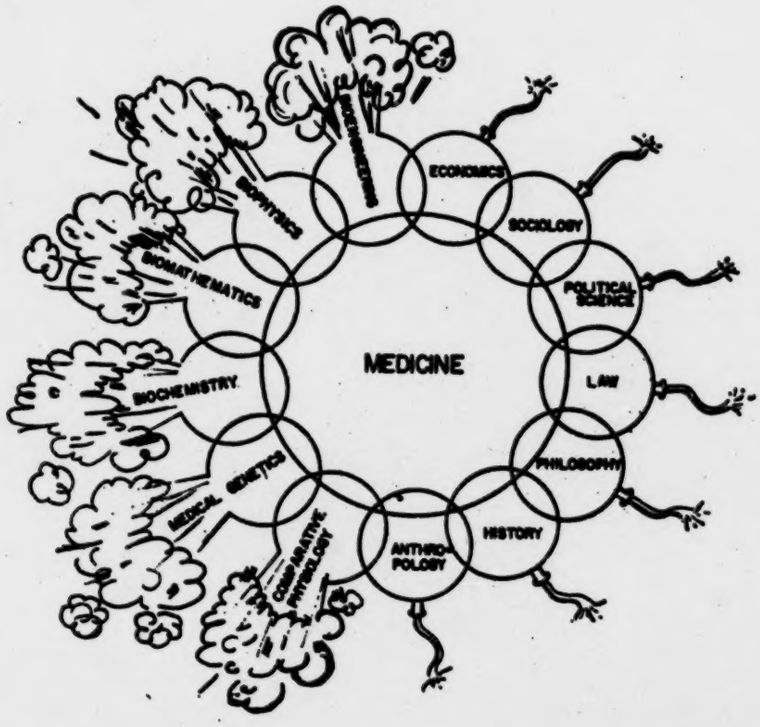
On the one hand, where 10 biomedical resource libraries are not as mutually supportive in their collections as might be hoped, KOM has more than its share of experimental computer retrieval capacity. There are two MEDLARS centers, one at Ohio State University (OSU) and the other at the University of Michigan (UM). Beginning in January 1970 two SUNY Biomedical Communications Network Terminals will be available, one at OSU and the other at the Medical College of Ohio at Toledo (MCOT). The former is part of a separate national network operated from the National Library of Medicine. In some RMLs a formulation unit is part of its operation, but such a unit does not appear to be desirable for KOMRML. Nevertheless, the production of reference lists does have an effect on the document delivery services. Whether the two separate networks, MEDLARS and RMLs, need to be better integrated is a decision that must be made at a national level: there does not seem to be any need within KOMRML to relate these two services so long as funds are available to support these facilities separately.

Figure 2

Changes in the relationships in the use
of the scholarly record



Overlapping of established sciences with "sphere" of medicine



Explosive changes which have been occurring in the past two decades

Source: Ruschmer, R.F. and Huntsman, L.L. "Biomedical Engineering" Science, 167:840-844, Feg. 1, 6 February 1970. Copyright 6 Februrary 1970 by the American Association for the Advancement of Science.

With two SUNY terminals in KOMRML, this sophisticated, automated system now spans four RMLs. Assuming this powerful system will continue to expand its data base, as well as means of access to the data base, the system would appear to be a useful method to expand KOMRML service. Some study was undertaken during 1969 on how to incorporate the use of the SUNY terminal into KOMRML, but no convenient or economic way could be devised. Further study is underway to determine what possibilities the SUNY terminal may possess for the region.

Regional Medical Programs

Libraries are not the only institutions attempting to "regionalize". Since part of the function of RMP is to provide the means to disseminate knowledge, it would appear that all RMPs should have some project related to library service which should in turn support the national RML effort. Here again, a concept which appears to make administrative sense is difficult to translate into an operationally viable network. It is not the purpose of this report to discuss the general political aspects of the national RMP organization or any one of the five RMP units of KOM. Although two of the five RMP units in KOM now have library oriented projects under way, there are several factors which must be noted.

1. Each RMP has its own method of evaluating the importance and significance of proposals for accomplishing its stated objectives. If there is not an appropriate task force or leadership in the RMP administration to promote, or at least, relate sympathetically to the expansion of library service to its region, little can be accomplished to acquire money from its recently reduced funding.

2. Communications among health professionals is not a new phenomenon; each professional group has its own associations and the members have loyalties and ties with specific institutions. Library service, as an aid to communication, cannot be imposed upon a group of people when it does not fit their habits and patterns.

3. The establishment of an RMP library project requires the existence of a leader to organize and follow through. While intellectual leadership is available, the effort to marshall the bureaucratic processes by these individuals is beyond the time they have available to engage in the necessary preliminary work involved.

4. Library service of any kind is a highly interdependent operation. Any RMP project started must proceed along common patterns and as a result must duplicate work that is in the process of being planned or developed elsewhere. Without this duplication, the RMP project must either not function or admit that it must invest funds for development that is being done elsewhere.

5. RMP library projects, as with RMLs, must build on the resources and facilities of existing institutions. No two RMP areas have the same array of institutions. As a result, it is difficult with data presently available to make generalizations that are applicable between RMPs.

Three RMPs, involving five KOMRML service areas, have yet to have any library program approved. To suggest that the three laggard RMPs get busy and do something will not insure action. Certainly, KOMRML as an institution has neither the authority nor the manpower to devote to the political machinations required to "get-something-started". Further, once RMP projects do get started, there is no mechanism except good will and a spirit of cooperation which makes it possible to "coordinate" RMP and RML efforts. This discussion is not meant to be pessimistic, rather the fact must be accepted, and then used, that the creation of a network program that is mutually supportive which depends upon different funding agencies and hundreds of institutions' cooperation is a slow process. A viable network must have the capability to cause the formation of stabilizing bureaucratic habit patterns.

Other Networks

Nelson Associates have studied for several years the interlibrary loan flow among New York institutions. (4) One element that needs to be emphasized about their study is the revealing of the number of formal and informal library "networks" that exist or are in the process of developing. Each of these systems, if viewed separately, appears independent. This, however, is misleading; the interdependence of these systems can be demonstrated when the interlibrary loan flow of the whole state is examined. When this kind of study is undertaken, it becomes apparent that some formal system of linkage be formulated among the public, academic, and special library consortia. Unfortunately, no such extensive study has been undertaken in KOM or even in any one of the KOM states. With even the knowledge of the existence of the many library systems, little can be accomplished toward established linkages between them and KOMRML. Three large library systems or programs (other than RMP) that exist in KOM are (i) the Michigan State Library "hot-line" system, (ii) the Ohio College Library Center, and (iii) the Kentucky Science and Technology Program. What significance these programs, as well as many others, might or ought to have for KOMRML cannot be assessed at this time. What perhaps can be said without threat of contradiction is that KOMRML is not infinitely expansible. Library service, even if narrowly limited in scope, cannot be provided to all health professionals within KOM without the use and cooperation of other than biomedical libraries. Health professionals, including biomedical librarians, must disabuse themselves of the egocentrism that our society is organized only along their intellectual pursuits and practices.

IMPLEMENTATION OF KOMRML PROGRAM

At the beginning of a new program, an almost feverish enthusiasm may prevail which is encouraged by naive expectations. As KOMRML began to plan its five-year-plan-of-action, hopefulness for a rosy future was triumphant. Further, prodded by an expansive NLM program policy statement as a guideline for encouragement to engage in grantsmanship, the proposal originally submitted to NLM for operating funds, after one year of experience, now appears almost amusingly ingenuous. The following was to be accomplished:

(4) Nelson Associates, Inc. Interlibrary Loan in New York State. New York, March 1969.

1. Access was to be provided to all 10 participating libraries to all health professionals of the region;

2. Citation services, that is, preparation of bibliographies beyond that available through MEDLARS and that necessary for interlibrary loan service, was to be given to all health professionals in the region who have no such service from a library;

3. This same group of individuals would be given information services, that is, questions involving simple fact or simple summaries would be dealt with;

4. A technical service unit was to be created which would undertake the following:

   a. Prepare and distribute a union list of serials of the regions' resource libraries;

   b. A union catalog of monographs was similarly to be prepared for distribution;

   c. Recommended lists for purchase of serials and monographs for clinical libraries was to be prepared and distributed;

   d. Prepare a program to augment the holdings among the participating libraries to increase access to the scholarly record of medicine;

5. Consultation services were to be organized for hospital and health agency libraries to aid them in improving their facilities and services to accomplish the aim of equal access to all health professionals;

6. An instructional program was to be started to teach and to train individuals those skills and techniques of library operation which were determined as needed from consultation services;

7. A non-print media center was to be developed which would at least prepare bibliographies of sources of material that would be of use for educational programs for health professionals throughout the region;

8. An evaluation program was to be established which would attempt to assess what changes the above activities produced within the region;

9. The implementation of such an extensive program would produce and reveal areas of inadequacy which were to be studied through the creation of an investigative unit in KOMRML.

NLM in its evaluation of KOMRML's application apparently was less than satisfied with the proposal. First, it reduced the period of support from five to three years, and second, reduced the funding requested the first year by 15% and by over 50% for the succeeding two years. Insofar as can be determined, the reason for this reduction was not because KOMRML had defined its objectives beyond its resources, rather it was thought the administrative mechanism of cooperation to accomplish these objectives was unmanageable, if not unworkable. Apparently, the assumption was that such objectives can only be accomplished through a centralized unit which would become an all inclusive and complete facility to the entire region. Whether this concept was the one governing the NLM's Board of Regents' decision is unknown, but if so, KOMRML's first year experience would indicate a narrowness of conception. To implement an expansive communication project through our libraries requires participation of literally hundreds of institutions and thousands of individuals. Certainly, after one year KOMRML cannot boast that it has established a stable or interdependent network of institutions, but given a few more years of the attitude of cooperation that has prevailed in the past two years, a stable regional network can become a reality. There is as yet no way to measure success of the KOMRML decentralized approach, but two aspects should be noted about its development. The task of organizing the participating libraries for KOMRML required each institution to examine itself in providing data for policy decisions. This information has given each institution an identity and revealed to itself what contribution it can make. Second, from the very beginning each participating library was to accept responsibility as a library of first recourse for an area within the region. Responsibility can generate action if given the opportunity. To summarize bluntly, if NLM's reason for restricting KOMRML's program was motivated by distrust of its administration, then this has been demonstrated to be less than sound. On the other hand, the proposed program is impossible to accomplish under existing constraints. Some method of establishing priority of program development must be devised by both KOMRML and NLM to relate to national goals. Just as with many library automation programs, as time goes on, the estimates of achievement recede further into the future. Each of the objectives of the program will be discussed, (i) its stage of development, (ii) the difficulties encountered or anticipated, and if possible, (iii) evaluative statements and proposals for investigation.

Document Delivery

As originally conceived KOMRML document delivery service was to be supportive only; that is, KOMRML was not to reduce autonomy in the mutual support among local library groups in supplying documents. Local resources had to be exhausted before KOMRML resources were to be utilized. Operationally, this meant that each participating library was to accept a number of institutions which would look to them as their resource library of first recourse for documents. A great deal of study went into determining dependence patterns for interlibrary loan service. (5) If the participating

(5) Cf. Interlibrary Loan Requests for Biomedical Literature Originating from Kentucky, Ohio, and Michigan Institutions. Kentucky, Ohio, Michigan Regional Medical Library, Papers and Reports, No. 1. Detroit, Feb. 1969.

library could not fill a document request, only then would KOMRML be brought into the picture; the request would be referred to the participating library that could fill it or to NLM. This "system" made several assumptions.

1. Each participating library already had an interlibrary loan program; by dividing up the region, a more equitable distribution of the work in providing interlibrary loan service would result.

2. Each participating library had the freedom (and responsibility) to formulate policies and practices for its service area, e.g.,

   a. To what extent local institutions should depend upon themselves before using the participating resource library was to be determined locally.

   b. The costs and the charges made for processing requests filled by a participating library within its own service area was left up to the participating library to administer.

3. The participating library had the responsibility to establish whether an interlibrary loan request which it could not fill was suitable for KOMRML action, e.g.,

   a. Was the request suitably prepared for referral,

   b. Was the request within the subject scope to be supported by KOMRML?

4. There were individuals who had no access to any biomedical library to which they could go for interlibrary loan service and who could make no arrangements with a participating library; these individuals could apply directly to the KOMRML Central Office.

This system of operation was put into effect in April and lasted until October. During September and October the NLM informed KOMRML that it was, in effect, circumventing, if not actually breaking, the law. All interlibrary loans were to be provided "free" to all qualified users. Participating libraries were making charges for interlibrary loan requests they filled from their own service areas. This, according to NLM staff, was illegal. On the other hand, the NLM policy statement on the establishment of RMLs is that a pre-grant level of service was to be negotiated and the RML was to maintain this level of service; that is, federal funds were not to be used to support this pre-grant service. Two proposals from KOMRML were forwarded to NLM for negotiating the pre-grant level of interlibrary service. Neither of these proposals was ever officially acknowledged as even received, much less commented on. A great deal of conversation was held on the interpretation of the Medical Library Assistance Act and KOMRML's ability to respond to various interpretations. These conversations at times

were less than conciliatory. KOMRML finally accepted the verbal instruction that all interlibrary loan requests made to participating libraries during November and December were supplied to the user without cost; payment was to be made to participating libraries at the same rate from KOMRML funds as for referral requests. Beginning with 1970 the proposal submitted on September 5 was to be used as a baseline for pre-grant service and KOMRML was empowered to set upper limits of free service to be determined by funds available. While this may be considered a temporary "solution", there are still unresolved questions of interpretations of the intent of the Medical Library Assistance Act with this regional service. Tables 2 through 7 report the interlibrary loan activity of KOMRML for 1969. An attempt will be made to interpret these tables in light of KOMRML's definition of goals and NLM's policies both written and as KOMRML interprets NLM's staff re-interpretation.

Method of collecting data for analysis. The decision was made that data on all ILL activity by participating libraries was to be collected no matter what the sources of funds were to pay for this activity. The procedures of recording data would, however, be such that requests processed by KOMRML supported from PHS funds could be separated from the total ILL operation. The reason for this decision was that KOMRML was still experimental; information was required for testing the bureaucratic organization devised, but more important, data were needed for planning.

Electronic data processing equipment was to be used for monthly, quarterly and annual summaries. The design of the data collecting methods might still be judged as adequate. The analysis of the data using computers was not a success. This is one of the many instances in which the use of computers in what appears to be simple routines in library operations turns out to be more difficult than anticipated. The "automated system" of data analysis turned out to be too sophisticated for our needs. The computer could grind out far more data than we had staff time to evaluate. Further, to get the essential information as much time for input was required as would be needed if it were tabulated by hand with an office calculator. This is not meant to be an indictment of the use of computers for library operations; it is related for the purpose of demonstrating that the wise use of computers requires (i) a knowledge of the logic of library procedures that is often undefined by librarians and (ii) good statements of objectives. The plan of data collecting proceeded in its early stages in ignorance, and in its later stages was replaced by a desire to remain ignorant, of the NLM required quarterly reports of activity. (This is discussed in more detail later.)

The classification of categories of users and activity in the following discussion is that devised by KOMRML. Since the classifications and organization of data will be changed beginning in 1970, an attempt will be made to analyze the data available in relation to what KOMRML originally conceived its function to be because data collected in the future will not be as readily comparable.

Table 2

Requests received by participating libraries during 1969 from different user groups

User Groups		Totals	WSU	MSU	UM	UD	OSU	CHSL	UC	MCOT	UK	UL
Hospitals	Requests	24,309	11158	770	232	60	700	8906	768	48	1059	608
	Filled	19,206	9282	640	196	53	507	6638	512	30	808	540
	Unfilled	5,103	1876	130	36	7	193	2268	256	18	251	68
	Referred	1,739	737	124	12	2	162	252	227	17	148	58
Industry/ Commerce	Requests Rec'd	5,690	2271	520	1645	9	233	277	359	6	37	333
	Filled	4,241	1743	411	1126	8	156	222	227	3	36	309
	Unfilled	1,449	528	109	519	1	77	55	132	3	1	24
	Referred	1,024	266	88	454	1	61	7	132	3	-	12
Government Organizations	Requests Rec'd	2,561	1339	224	47	-	248	72	349	-	27	255
	Filled	1,964	1073	192	47	-	214	51	164	-	19	204
	Unfilled	597	266	32	-	-	34	21	185	-	8	51
	Referred	417	148	25	-	-	30	5	168	-	2	39
Educational Organizations	Requests Rec'd	2,290	361	62	166	13	366	616	164	426	44	72
	Filled	1,504	305	57	144	13	243	496	41	106	38	61
	Unfilled	786	56	5	22	-	123	120	123	320	6	11
	Referred	465	6	3	-	-	57	39	115	243	1	1
Foundations	Requests Rec'd	990	652	67	-	1	270	-	-	-	-	-
	Filled	748	520	51	-	1	176	-	-	-	-	-
	Unfilled	242	132	16	-	-	94	-	-	-	-	-
	Referred	123	65	7	-	-	51	-	-	-	-	-
Public Library/ Museums	Requests Rec'd	162	31	1	12	-	73	23	5	4	3	10
	Filled	130	24	1	11	-	64	18	-	4	3	5
	Unfilled	32	7	-	1	-	9	5	5	-	-	5
	Referred	7	-	-	1	-	1	-	5	-	-	-

Table 2 (con't)

User Groups		Totals	WSU	MSU	UM	UD	OSU	CHSL	UC	MCOT	UK	UL
Professional Societies	Requests Rec'd	459	59	-	2	-	280	-	-	118	-	-
	Filled	290	58	-	1	-	217	-	-	14	-	-
	Unfilled	169	1	-	1	-	63	-	-	104	-	-
	Referred	93	-	-	-	-	-	-	-	93	-	-
Individuals	Requests Rec'd	235	21	22	-	75	5	-	-	5	102	5
	Filled	191	17	13	-	73	3	-	-	3	77	5
	Unfilled	44	4	9	-	2	2	-	-	2	25	-
	Referred	2	2	-	-	-	-	-	-	-	-	-
Outside Region 5	Requests Rec'd	2,556	687	114	9	1	447	100	24	-	1157	17
	Filled	1,945	575	113	8	1	327	84	19	-	801	17
	Unfilled	611	112	1	1	-	120	16	5	-	356	-
	Referred*	-	-	-	-	-	-	-	-	-	-	-
Participating Libraries	Requests Rec'd	6,965	2452	228	1806	87	487	304	51	-	902	648
	Filled	5,625	2038	187	1568	53	299	216	27	-	744	493
	Unfilled	1,340	414	41	238	34	188	88	24	-	158	155
	Referred	993	312	41	217	23	125	57	17	-	100	101
Other*	Requests Rec'd	397	184	8	-	2	41	46	-	-	115	1
	Filled	300	128	8	-	-	31	43	-	-	89	1
	Unfilled	97	56	-	-	2	10	3	-	-	26	-
	Referred	17*	10	-	-	-	2	4	-	-	1	-
Grand Totals	Requests Rec'd	46,614	19,215	2016	3919	248	3150	10,344	1720	607	3446	1949
	Filled	36,144	15,753	1673	3101	202	2237	7,768	990	160	2615	1635
	Unfilled	10,470	3,452	343	818	46	913	2,576	730	447	831	314
	Referred	4,880	1,546	288	684	26	489	364	664	356	252	211

Table 3

Summary activity of KOMRML interlibrary loan requests in 1969 by different user groups

Type of Institutions	No. of Institutions By Type	% of Total Institutions	No. of Requests Received	% of Total Requests Rec'd	No. of Requests Filled	% of Total Requests Rec'd	No. of Requests Referred	% of Total Requests Rec'd	No. of Requests Returned/Rejected	% of Total Requests Rec'd
Hospitals	196	43	24,309	53	19,206	41	1739	3.7	3364	7.2
Industry/Commerce	91	20	5,690	12	4,241	9	1024	2.2	425	0.9
Government Org.	31	7	2,561	5	1,964	4	417	0.9	180	0.4
Educational Org.	100	22	2,290	5	1,504	3	465	1.0	321	0.7
Foundations	9	2	990	2	748	1	123	0.3	119	0.3
Public Libraries/ Museums	27	5	162	< 1	130	< 1	7	< 0.1	25	< 0.1
Professional Soc.	4	< 1	459	1	290	1	93		76	< 0.1
Individuals in KOM	NA	NA	235	< 1	191	< 1	2	< 0.1	42	< 0.1
Institutions/Individuals Outside KOM	NA	NA	2,556	5	1,945	4	0	--	611	1.3
Unidentified Institutions Outside Service Area	NA	NA	397	1	300	1	17	< 0.1	80	< 0.1
Participating Libraries	10	NA	6,965	15	5,625	12	993	2.1	347	0.7
Total	458		46,614		36,144		4880		5590	

Table 4

Percentage of interlibrary loan activity undertaken by participating libraries for 1969 for different user groups

User Groups		Totals	Participating Libraries: WSU	MSU	UM	UD	OSU	CHSL	UC	MCOT	UK	UL
Hospitals	% of total requests rec'd	52	58	38	6	24	22	86	45	8	31	31
	% filled	79	83	83	84	88	72	74	67	63	76	89
	% referred	7	7	16	16	3	23	3	30	35	14	9
Industry/ Commerce	% of total requests rec'd	12	12	26	42	4	7	3	21	1	1	17
	% filled	75	77	79	66	89	66	80	63	50	97	93
	% referred	17	12	17	31	11	26	3	37	50	-	4
Government Organizations	% of total requests rec'd	6	7	11	1	-	8	1	20	-	1	13
	% filled	77	80	86	100	-	86	71	47	-	70	80
	% referred	16	11	11	-	-	12	7	48	-	-	15
Educational Organizations	% of total requests rec'd	5	2	3	4	5	12	6	10	70	1	4
	% filled	66	84	92	87	100	66	81	25	25	86	85
	% referred	20	2	5	13	-	16	< 1	70	57	2	1
Foundations	% of total requests rec'd	2	3	3	-	< 1	9	-	-	-	-	-
	% filled	76	80	76	-	100	65	-	-	-	-	-
	% referred	12	10	10	-	-	19	-	-	-	-	-
Public Libraries/ Museums	% of total requests rec'd	< 1	< 1	< 1	< 1	-	2	< 1	< 1	1	< 1	1
	% filled	80	77	100	92	-	88	78	-	100	100	50
	% referred	4	-	-	8	-	1	-	100	-	-	-

Table 4 (con't)

User Groups		Totals	Participating Libraries: WSU	MSU	UM	UD	OSU	CHSL	UC	MCOT	UK	UL
Professional Societies	% of total requests rec'd	1	< 1	< 1	< 1	-	9	-	-	19	-	-
	% filled	63	98	-	50	-	77	-	-	12	-	-
	% referred	20	-	-	-	-	-	-	-	79	-	-
Individuals	% of total requests rec'd	< 1	< 1	1	-	30	< 1	-	-	1	3	< 1
	% filled	81	81	59	-	97	60	-	-	60	75	100
	% referred	1	10	-	-	-	-	-	-	-	-	-
Outside Region	% of total requests rec'd	5	4	6	< 1	< 1	14	1	1	-	34	1
	% filled	76	84	99	89	100	73	84	79	-	69	100
	% referred	-	-	-	-	-	-	-	-	-	-	-
Participating Libraries	% of total requests rec'd	15	13	11	46	35	15	3	3	-	26	33
	% filled	81	84	82	87	61	61	71	53	-	82	76
	% referred	14	13	18	12	25	25	19	33	-	11	16
Other	% of total requests rec'd	1	1	< 1	-	< 1	1	< 1	-	-	3	< 1
	% filled	76	70	100	-	-	75	93	-	-	77	100
	% referred	4	5	-	-	-	5	9	-	-	1	-
Total	% of total requests rec'd	100	100	100	100	99	99	100	100	100	100	100
	% filled	77	82	83	79	81	71	75	56	26	76	84
	% referred	10	8	14	17	10	16	1	39	59	7	11

Table 5

ILL transactions received and sent among participating libraries

	Wayne State University	Michigan State University	University of Detroit	University of Michigan	Cleveland Health Sciences Library	Medical College of Ohio at Toledo	Ohio State University	University of Cincinnati	University of Louisville	University of Kentucky	Totals
Wayne State University	-	109	114	485	140	632	309	243	121	105	2258
Michigan State University	92	-	-	21	60	22	16	6	2	9	228
University of Detroit	18	2	-	17	5	-	1	11	5	5	64
University of Michigan	452	324	21	-	85	115	78	113	48	89	1325
Cleveland Health Sciences Library	146	3	-	18	-	46	59	3	7	7	289
Medical College of Ohio at Toledo	-	-	-	-	-	-	-	-	-	-	-
Ohio State University	59	10	-	52	90	86	-	68	21	20	406
University of Cincinnati	-	-	-	-	2	-	1	-	-	3	6
University of Louisville	60	-	1	1	63	15	61	5	138	231	575
University of Kentucky	80	2	2	47	79	12	175	337	-	-	734
Totals	907	450	138	641	524	928	700	786	342	469	5885

Rows indicate referrals processed by institution at left; columns indicate referrals made by institution at head of column to institution at left.

Table 6

Reasons participating libraries were unable to fill interlibrary loan transactions

Reasons Not Filled	No. of Transactions Unfilled	% of Transactions Unfilled
1. In circulation	609	5.8
2. Bindery	1007	9.6
3. Reference/Reserve	151	1.4
4. Title Not Owned	4704	44.9
5. Issue Not Owned	387	3.7
6. Volume Not Owned	1421	13.6
7. Missing	912	8.7
8. Cannot Verify	368	3.5
9. Not Received	419	4.0
10. Other	492	4.7
Total	10,470	

Table 7

Estimated and Actual Interlibrary Loan Flow in KOMRML for 1969

	WSU	MSU	UD	UM	OSU	CHSL	UC	MCOT	UK	UL	TOTAL
1968 Estimate of transactions processed for service area	13310	2260	150	1320	1490	9160	2810	540	450	1960	33450
% of total	40	7	<1	4	4	27	8	2	1	6	100
1969 Transactions processed (less outside of region requests)	18528	1902	247	3910	2703	10244	1696	607	2289	1932	44058
% of total	42	4	<1	3	6	30	5	1	5	4	100
1968 Estimated increase or decrease of transactions	+5050	+1570	+120	+350	-50	+1780	+1350	+540	-830	+1260	+11140
Actual increase or decrease of transactions 1969	+5215	-358	+97	+2590	+1213	+1084	-1114	+67	+1839	-28	+10608

The "meaning" of referral requests. Tables 2 through 7 are compiled by adding up the activity of each participating library; that is, each participating library reported (i) each transaction it processed and (ii) the ultimate disposition of that transaction, (a) whether it was filled, (b) returned to the requester, or (c) referred to another participating library or NLM. In the KOMRML system a referred ILL request is counted as a separate transaction by more than one participating library. While the accusation might be made that the analysis is a legerdemain of number manipulation, an understanding of the organization for referring requests might temper this accusation.

1. All biomedical ILL requests from whatever source originating within KOM should be processed through one of the participating libraries.

2. Each participating library has a service area; any request from whatever source originating within the service area should be processed first through that service area library.

   a. Any request received by a participating library from its service area was considered its responsibility; all such requests were reported to KOMRML.

   b. If a request could not be filled by the participating library or be referred locally for processing and was deemed a suitable request that could be filled by one of the participating libraries or NLM; the request was forwarded. From Table 3, it can be seen that 4,880 transactions were so treated. (Note: no request received from outside KOM during 1969 was given this "referral" service.)

3. A participating library is, obviously, a member of its own service area; if it should receive a request from its primary clientele which it cannot fill from its own or its service area resources, the participating library could forward this request to one of the participating libraries.

   a. The participating library receiving this request did not distinguish it from those "referred" requests as described in 2.b. in reporting; thus, from Table 2 it can be seen that 6,925 requests were received by participating libraries from other participating libraries.

4. Not all 4,880 "referred" requests as described in 2.b. were sent to participating libraries; some were sent directly to NLM; Table 5 gives a summary of the referral pattern less those that were referred out of KOMRML to NLM.

In the following discussion the distinction must be realized between request and transaction. An ILL request may be counted as more than one transaction because it is handled by more than one participating library. No transaction initiated by the primary clientele of a participating library can be counted by that participating library, but if sent as a request to another participating library will be counted as a transaction. Another way of viewing the numbers in Tables 2 through 7 is that they only reveal the lending part of the total ILL transaction involving a referral system. No account is made of the borrowing part of the ILL transaction.

Use of document delivery service. Table 2 lists the actual number of transactions carried out by each participating library for each group of users. Table 3 is a summary of Table 2 showing the relative proportion of activity for each group of users. These figures can perhaps be best interpretated by making comparisons with pre-grant activity. (6) With the establishment of KOMRML a new type of ILL transaction was created, the referral, and new categories of transactions were defined, those originating (i) from individuals and (ii) from outside KOM. If the new categories of transactions are removed from the 1969 data and compared with the 1968 data, a shift, albeit minor in terms of absolute numbers, has occurred in ILLs processed by participating libraries.

Comparison of KOMRML ILL transactions 1968 over 1969

	1968 %	1969 %
Hospitals	67	62
Industry	9	15
Government (other than hospitals)	6	7
Educational organizations	12	12
Foundations	3	3
Public Libraries	<1	<1
Professional societies	3	1

Industrial use of participating libraries increased greatly as well as government organizations. This is easily explained by the change in the bureaucratic arrangements brought about by the establishment of RMLs. Apparently, many of the industrial and government organizations before the establishment of KOMRML used library resources outside of KOM which now are forced to use KOM resources. Obviously, the RML program is having an impact on the relation-

(6) Further comparisons will be made in the discussion and the data from this report will be referred to as the 1968 data or pre-grant activity.

ships among institutions. Even though there was a 10% increase in the number of requests received from hospitals over 1969 and still constitutes 62% of the KOM requests received, the growth in the industrial and governmental use reduces the relative share of the ILL activity. This, however, is probably only a first year phenomenon. Now that the readjustment of flow pattern has taken effect, the future growth of ILL service will be with hospitals. More hospitals will be able to utilize KOMRML services as the various educational and training programs for hospital libraries are effected. In other words, more hospitals will be asking for services than other institutions simply because proportionately there are more of these institutions to create and to improve their library services. (Table 1)

Table 4 translates the absolute numbers of Table 2 to percentages. Quite clearly the preponderance of hospital requests are generated from the three metropolitan areas, Cincinnati, Cleveland, and Detroit. The major concentration of the largest teaching-research hospitals are in these areas. The increased number of requests from industrial institutions in the MSU, UC, and UM service areas has more significance to the operation of KOMRML, or more specifically the participating libraries. This has put an undue strain on their facilities primarily because this expansion of use by industry was not anticipated.

A factor which was known before KOMRML, but which is clearly shown in Table 4, is that each participating library has an unique array of ILL clientele. Several questions can be asked, but the existing data provide no insight for answers. Because of the preponderance of use by hospitals of certain participating libraries, should this be interpreted that education and training of hospital librarians be done in these service areas or should it be done in those areas where there are proportionately fewer requests from hospitals? Does the fact that each participating library had a different array of users mean that perhaps a uniform code of service priorities for all participating libraries is not only unnecessary, but unwise? Obviously, a better grasp of institutional needs must be obtained to insure sound program development.

Performance evaluation. There are three aspects of participating library performance ability that can be discussed with present data (no regionwide data were collected in 1969 on performance time of processing a request), (i) the number of requests filled, (ii) the number referred, and (iii) the number unfilled.

The overall percentage of requests filled by KOMRML from the Tables appears to be only 77%. In fact, from the user viewpoint the percentage figure of filled requests is much higher than this. All referral requests are counted as two transactions, once by the referring library and once by the receiving participating library. Subtracting the 4,880 requests from the total number of transactions processed and also the total number of unfilled requests, and assuming that all 4,880 requests were filled, the percentage rate of request fulfillment (rather than transaction fulfillment)

would be brought up to 86%. Obviously, not all referred requests were filled and so the rate is not that high. On the other hand, the fact should not be ignored that there were many requests that could have been filled through referral that were not simply because the rules under which KOMRML operates require that a date be placed on the request after which the requested document is no longer needed, or else it will be subject to only one referral. Thus, a participating library may return a request because an item was in circulation, in the bindery, or not owned because the participating library determined that it could not be received within the time limits set by the requesting library. So long as these conditions and these rules hold, the calculation of percentage filled is no true criterion of KOMRML's ability to fill a request, nor does it seem feasible to try to collect such data to get a better picture of performance rate. This type of percentage figure only has an evaluative significance for centralized RMLs.

Table 4 again reveals the uniqueness of each service area. Examining the performance of each participating library, excluding that of the UD and MCOT because of the newness of the latter and the selective way in which the former receives requests, a wide variation in performance rates is exhibited which cannot be explained from data available. For example, the rate at which hospital requests are filled among participating libraries varies from a low of 67% to a high of 84%. For educational institutions the spread is even greater, from a low of 66% to a high of 92%. For the hospital situation, it does not appear tenable that the needs of most hospital professional staff would find medical school libraries inadequate to their requirements. A careful examination of hospitals might show that it is but a few institutions with unusual or extensive research programs which cause such a high rate of inability to supply documents. Perhaps some educational institutions are undertaking to support graduate or research programs without what would be considered adequate library facilities.

Table 6 lists the reasons participating libraries could not fill requests. Close to 10% of the transactions could not be completed because an item requested was in the bindery, and close to 9% because the library could not locate an item it supposedly owns. What an inculpation of academic library housekeeping! Over 6,000 of the transactions could not be completed because an item was not owned. With the referral system operating this means (using the proportions given in Tables 2 and 3) that half of these were referred. The cost of this is not insignificant. It costs the participating library at least $1.00 to process a request either to return or refer it. A referred request, if filled, cost a minimum of an additional $2.00. This speculation on out-of-pocket costs in the lending operation is presented with the purpose that should a union list of serials exist, and should it be able to be maintained at a cost of $5000. per year, this investment would pay for itself even if there were no increase in ILL traffic.

Referral patterns. The important element that was introduced for KOM libraries was that KOMRML would take the responsibility for referring unfilled requests. Some aspect of this service was discussed above, but because of its pivotal significance for the future of KOMRML further data were collected. First, it should be noted the relative use of the service

Use of Referral Service by Different Categories of Users

Type of Institution	Total Requests Referred	% of Total Referrals	Ratio of Referral Requests to Total Requests Received
Hospitals	1739	35	.07
Industrial	1024	21	.18
Governmental	417	9	.16
Educational	465	10	.20
Foundations	123	3	.12
Public Libraries	7	<1	.04
Professional Socities	93	2	.06
Individuals	2	<1	<.01
Participating Libraries	993	20	.14
Other	17	<1	.04
Total	4880		

by different categories of users. In absolute numbers, hospitals received more referral service than any other group; it should be emphasized that ratio of requests processed to the number referred is low compared to industrial, governmental, and educational institutions. In other words, insofar as KOMRML is concerned it is considerably more expensive to handle the latter institutional requests than those from hospitals. The relatively high ratio of requests referred to those received by participating libraries can be explained in part by the fact that transactions listed in this category can arise from two sources, as a referral request and as a request originating at the participating library. Although only a little more than 10% of KOMRML ILL requests are for monographs, as a group they are difficult to fill through a referral system. There is no location device to determine which participating library may own a particular title. (This problem will be discussed later in the report). A request may have to be referred to several libraries before it can be filled.

The data of Table 5 is included primarily for comparative purposes in future years. No pattern for referrals was predictable from the 1968 data. Data in future years might reflect what effect policy and procedure patterns has on referral patterns.

Estimate of service loads. The 1968 data were collected for the purpose of establishing a base line of operations for negotiations with NLM and to provide a means for each participating library to estimate its 1969 work load with the implementation of KOMRML. There were 46,614 transactions processed by KOMRML for 1969, including referrals from KOM institutions and requests received from outside the region. From the 1968 data it was estimated that 33,450 ILL requests were processed for KOM institutions. This number include those processed at NLM for KOM institutions. (Table 7) The actual number of requests processed by participating libraries in 1968 was estimated to be 27,990. In 1969 KOMRML would have to process the 5,460 requests that were sent directly to NLM in 1968 as well as process requests for referral; this would result in an increased load of about 11,150 transactions for KOMRML to process in 1969. This estimate was based on the conditions that full referral service would not begin until April and that NLM would still accept requests until June from KOM institutions. The actual increase of transactions reported in 1969 for KOM institutions was 10,608, a little less than 5% of which was predicted.

Although the overall activity was estimated within reasonable limits of error, the estimates of activity for participating libraries were far less successful. Two reasons can be given for this failure: (i) The method of estimating of referral work was unrealistic. (ii) Knowledge of some KOM institutional needs for documents were not anticipated. These "errors" of methodology and judgment are discussed because it demonstrates that the distribution of documents is more complex than librarians and administrators are wont to admit, and also, as a demonstration of need for better methods for the study of library operations. The method for calculating the possible referral load was determined from 1968 data sample of unfilled requests whether it could have been supplied by WSU, if not, which one of the other participating libraries could. ILL loan librarians did not follow this simple method when faced with referring requests. Each ILL librarian had built up preferences in making requests to different libraries and these preferences were undoubtedly continued in making referral requests. This was complicated by the fact that in making referral requests as many as eight separate serial lists had to be checked. ILL librarians should not be faulted for chosing the first participating library identified as owning the request.

The other unanticipated factor involved in the estimate was the import of the national RML network. Industrial, governmental, and educational institutions acting independently had, over the years, established their own informal network of borrowing and lending. When services from NLM and other RMLs was cut off, these institutions were forced to use KOMRML. Because of the geographic location of some of the governmental and industrial organizations, these requests were directed to but a few participating libraries.

These two factors have produced operational difficulties in several participating libraries. UM is used as an example, not because

it qualitatively is distinct, but because the consequences are more easily identifiable. For the year, the number of transactions actually processed were seven times greater than estimated. This increase over the estimate does not represent the actual conditions because KOMRML's document delivery service was not fully operational until June. The estimated rate of increase was 380 transactions. UM was faced with processing more in one month than was anticipated as an increase for the whole year. At least two reasons can be given for the phenomenal increase. (i) Over 40% of the requests processed by UM are from industrial organizations, the highest percentage of any participating library. As already admitted, the 1968 study did not anticipate the industrial requests. (ii) Over 45% of the requests received by UM are from participating libraries either as referrals or direct requests. UM collections are indeed extensive and it is therefore convenient for ILL librarians to send requests and referrals to UM. This unexpected and unplanned for increase has obviously strained the capacity of UM staff to fulfill their obligations. The situation is further complicated by the fact the UM is the largest medical school in KOM and has the largest health care and research complex of any participating institution. Demands on the basic clinic and research journals are obviously heavier than any other participating library simply because of the large faculty and student body. It is the same "set" of materials which are requested most often through ILL. Adjustments can and must be made in the coming year; the objective of KOMRML is to share resources, not to exploit specific institutions. The UM has been used as an example, but an examination of Table 7 shows similar underestimation of 1969 work loads.

The data prepared for quarterly reports indicates that the KOMRML pattern of ILLs is still less than stabilized. Two changes appear to be be occurring. There will be a decrease in the total share of KOMRML ILL carried on by WSU. Further, with the establishment of more RMLs, particularly in the South, there should be a decrease in the number of requests received from outside the region. UK had the major share of the responsibility for this activity in 1969. If the trend of increase continues in 1970 as it has in 1969, KOMRML will be processing at least 50,000 transactions for the region in 1970.

Problems. Every bureaucratic system has difficulties in maintaining a status quo. Confusion has to be expected in the establishment of a new bureaucracy. Although KOMRML would like to think that it has done satisfactorily in fulfilling its original objectives, this is hard to judge by the administrators of the program. The only true judge is the user. Few user complaints, considering the ILL load and the complexity of the organization, have come to the attention of KOMRML. There is little basis for assurance that KOMRML is in fact doing well with but two user criteria from which to judge, (i) the increased use of the document delivery service, and (ii) the relative absence of complaints.

Operationally, some problems can be identified. Some have already been mentioned.

1. Verification. The efficient functioning of an ILL operation depends upon the accuracy of citations. The major problem of KOMRML's program is the failure of requesting libraries to verify, or at least give a source of reference for the documents requested. Why such a seemingly

simple requirement is so consistently ignored and inadequately completed has been the subject of many papers published by librarians. It is difficult to convince requesters (and librarians) that they might possibly make errors in recording citations -- they do it so frequently they feel they understand. Verification is a tedious job; librarians are apt to apply a low priority to this task when under work stress. Interestingly, a tradition, perhaps based on a kind of one-upmanship attitude, that librarians working in resource libraries must complete work left undone by other librarians in citation verification. The attitudes of many individuals relating to this important aspect of ILL activity has to be changed before any marked improvement can be expected. This requires educating and training. Steps are being taken to provide educational opportunities within KOMRML. One attempt to alleviate this problem has been to establish a KOMRML policy that participating libraries need not undertake any verification work unless there is evidence that the requester has made an effort. In essence, this means that by administrative fiat, KOM institutions must demonstrate a level of competence in preparing ILL requests before they can take advantage of the offered services.

2. Adherence to procedures. The processing of an ILL transaction involves considerable paper work and decision making. Although a KOMRML procedure manual does exist, changes in work assignments or changeover of staff results in some parts of the procedure being missed. Again, there is no way to insure absolute adherence to routines and procedures. Perhaps the day is not too far into the future when the national ILL flow will be so large that leadership can be found to "automate" aspects of the process.

3. Location searching. Identifying the appropriate participating library or RML to forward a request has been and will continue to be a vexing problem. Perhaps when a national biomedical serials data bank is completed and local, regional and national union lists can be prepared, part of the problem can be alleviated. Locating monographs, however, will remain a problem for some time. Union catalogs have been demonstrated to be of value, but for an operation as KOMRML it still appears that it is cheaper to invest in several referrals than to try to support the expense of maintaining union catalogs. (This is discussed in more detail below.)

4. Overloads. That some participating libraries are receiving, relatively speaking, more than their share of work has already been dealt with in detail above.

5. Delivery time. No dependable method was developed for tabulating processing times required per transaction. However, it is known that not all participating libraries are able to perform at the standard set. This, again, may be related to overloads.

6. Exploitation of resource collections. Making facsimile copies causes damage to many books and journals. Although no published study is available to judge the actual damage, the damage to current materials is less than what some librarians believe because opening books and journals might in some way be considered as the old fashioned library technique of collating

new acquisitions before being made ready for circulation. The damage arises from careless facsimile machine operaters who tear pages when they get caught in the nooks and cranies of the machine. Older material, say those published before 1940, present other problems. (a) The bindings, both threads and glue, have deteriorated so that opening a volume for copying breaks the binding; because of the condition of the paper, such damage can rarely be repaired. (b) Libraries perserve journals by binding them. The rules and policies of binding 30 years ago did not include the possibility of some of our present facsimile machines. Volume titles, particularly during the '30's, were often bound into volumes over four inches thick. Even the best of library binding of volumes of this size is fragile. Quite clearly the conditions for preservation of materials of earlier years does not match our use of them today. While it was certainly understood by all participating libraries that their collections have always been maintained as a public trust, the access to these collections through the technology of facsimile copying machines is conflicting with this public trust in that the collections are being slowly destroyed. Any solution to this conflict that appears technically feasible does not appear to be economically feasible if the quality of access to resource collections is to be maintained and expanded as originally conceived by the RML program.

Citation Services

Since all MEDLARS service to KOM is outside KOMRML's jurisdiction, a citation service was envisaged as a necessary supplement because few clinicians have use for the extensive and detailed bibliographies produced through MEDLARS; further, the clinician's need for information frequently must be supplied in less time than the existing MEDLARS centers can provide. With simple-minded gullibility this aspect of the program was to be started by announcing the availability of the service and employing a reference librarian to carry out the work. All libraries can use another reference librarian to give more personalized service, however, providing reference service on a regional basis is not the same thing as the person-to-person service provided in a library. All reference citation service is a matter of negotiation between the requester and librarian. Taylor describes the interface of seekers of information and librarians:

> When [seekers of information] go through librarians they must develop their questions through four levels of need...visceral, conscious, formalized, and compromised needs.... The reference librarian attempts to help him arrive at an understanding of his"compromised" need by determining (1) the subject of his interest; (2) his motivation; (3) his personal characteristics; (4) the relationship of the inquiry to file organization, and (5) anticipated answers. (7)

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(7) Taylor, R.S. Question-negotiation and information seeking in libraries. College and Research Libraries 29:178-94, May 1968.

Who is to receive regional citation service. A question has to be asked, to whom is citation service to be given? The simple statement that it would be provided individuals who do not have access to a biomedical library includes a lot of health professions. As observed in Table 1, 43% of the hospitals in the region did not contact KOMRML for document delivery service; we can perhaps assume, except for a few institutions, that these hospitals have no librarian even if they have a book collection. While it may be possible to train an individual at these 475 hospitals to prepare and process an interlibrary loan request, citation services requires a level of education and sophistication to undertake the necessary negotiation that is not trainable with the same ease. One, or even 10, good reference librarians located at a central point could not undertake to provide a dependable citation service to 475 hospitals. Traditionally, libraries have limited service by setting up privileged classes of users. Although struggling with the concept, KOMRML has yet been unable to define or to identify any particular group who should have citation services before other groups. If a decision cannot be arrived at on how to provide equal service throughout the region, then the alternatives appear (i) to do nothing, or (ii) engage in some experimental activity.

The problems of negotiation. If it is accepted that for most citation services the negotiation process is necessary, and that the face-to-face contact for a regional service is not possible, then the only alternative method is with correspondence, telephone, TWX, or a combination of these communication mechanisms. Trying to negotiate through correspondence is usually unsatisfactory because of the time element and it is not feasible to learn all five of the reference librarian's "need-to-know" as described by Taylor. TWX would reduce the time element, but the same situation still holds for the reference librarian. The telephone is the next best alternative to a face-to-face encounter, however, this too involves other difficulties. Unless the requester makes the call and talks directly with the reference librarian, complex timing operations are involved. If a reference librarian must place a return call to a clinician, locating him at a time when he is willing to discuss his information problem is not an easy scheduling situation. An unlimited WATTS line for the region could be an approach, but the cost of such a communication system is beyond the financial resources of KOMRML.

Limitation of negotiation. Another alternative to the negotiation problem is to develop a means for seekers of information to bypass the elaborate face-to-face interview to arrive at the "compromised" need described by Taylor. Medical Subject Headings as the file organization for the use of Index Medicus is not suited to the clinician's frequent need of easy access to the often asked question of, "I want some recent information on...." Reference librarians often interpret this statement into a desire for articles on the subject of the information seeker's interest. The article must be selected from dozens, if not hundreds, of possible relevant articles. A solution might appear for a reorganization of the file arrangement to suit the clinician's way of dealing with information questions. Physicians in completing patient records must use, in

accredited hospitals, one of the two standard statistical classifications of disease to describe and to justify the patient's stay in the hospital, Standard Nomenclature of Diseases and Operations or the International Classification of Diseases.... Since this terminology is familiar to nearly all physicians and is used by them to describe diagnostic and therapeutic conditions and actions, a citation service might be devised which limited questions to those which could be stated in the terminology of these two file arrangements. Whether such an approach to the limitation of citation service would be of use to clinicians would require considerable study and experimentation. A grant application was made to NLM (not through KOMRML) to study this approach to providing citation services, but was disapproved.

SUNY Biomedical Communications Network. Because of the speed with which references can be retrieved once a question is negotiated, the SUNY system appears suitable to deal with many of the clinically derived reference citation questions. KOMRML, as already noted, has two SUNY terminal installations in the region. Although KOMRML still has found no solution to the negotiation problem in providing citation services, a supplemental application will be submitted in 1970 with a different set of limitations than those described above. Questions will be accepted only from institutions that have staff to do the necessary negotiations with information seekers. The time element can be dealt with on the condition that TWX facilities will be available at least at all participating libraries.

Decentralization of citation services. Rather than the Central Office dealing with all citation services, the decentralization of KOMRML might appear to some to be well suited administratively to inaugurate such service at each participating library. In fact, such services are being given in varying degrees of sophistication and under varying conditions at each participating library. Such service is nevertheless limited in general to metropolitan areas. All the problems involved with negotiation discussed above hold with a decentralized arrangement as with a centralized one. The lack of coordinating service of this type so that it will be given uniformly and dependably at 10 different locations is an administrative networking problem that defies solution with the facilities of KOMRML.

Information Services

Citation and information services are usually called reference service by most librarians. The distinction was made because operationally they can be divided and because they do require different skills to provide. The information services provides answers to questions rather than citations to documents which may contain the answer desired. If information services are confined to providing answers to simple facts; that is, those secured from directories, dictionaries, etc., or simple summaries far less negotiating is required than for citation services. Nevertheless, the same communication problems exist for regional information services as for citation services. When the time arrives in which

KOMRML can establish a dependable regional citation service, then this service can perhaps be extended to include information services.

Union List of Serials

Since the first service offered by KOMRML was an interlibrary loan referral service, the efficiency of such an operation depended upon the ability to identify the location of titles, and as important, assurance that a title was not available from any participating library. A union list of serials, therefore, is of prime importance to KOMRML. Several factors were involved in the original planning.

1. Eight of the 10 participating libraries already had serials holdings in machine readable form and another was in the process of developing a system;

2. Four participating libraries were already contributing to a local union list;

3. None of the systems were compatible with each other bibliographically or in the machine readable format;

4. The Executive Committee decided that information on what is not available is an important element in the production of any serials listing.

Creating a union serial list for KOMRML participating libraries in machine readable form would be of no especial benefit (with the possible exception of one) to any participating library. Any input, therefore, would have to be made as an extra effort by all participating libraries. Trying to develop one machine system or adopting one bibliographic system which could be used by all participating libraries would be a useless exercise in negotiating. Several participating libraries are part of larger library systems. Changes in bibliographic styling would involve major negotiation with large university library systems which would be reluctant to tamper with its total bibliographic practices until further direction is received from the national serials data bank program. Since Wayne State University was in the process of rewriting its entire serials data programs to utilize the IBM 360 series of computers, it was tentatively decided that this system would be used to produce the KOMRML serials list.

Since one of the features of the KOMRML union serials list was to indicate titles not held, a complete list of titles indexed by Index Medicus, Psychological Abstracts, Hospital Literature Index, Cumulated Nursing Literature Index, International Nursing Index, and Index to Dental Literature and their predecessor publications had to be compiled back to 1950. This work was begun in March and finished by October. The Wayne State University revision of its serials program was behind schedule and no input into this system had been started. This was fortunate because the NLM was in the process of defining a new policy with respect to RML union lists that had national importance.

What the actual sequence of events was in the development of this new NLM policy is unknown to KOMRML. The following discussion is not undertaken to determine fault or blame of any individual or institution, but rather to serve as an illustration of the complex arrangements that are necessary to make a national network of RMLs possible. The NLM administration of the national RML program is a bipartite one. Some aspects are monitored and policy decisions made by the NLM Library Operations while the grant applications, approval of individual program aspects and funding are controlled by Extramural Programs. When KOMRML was funded in January, the general program for the production of KOMRML's union list of serials was thought to be an approved one. During 1968 and 1969 it was announced in various news media that several groups of medical libraries in the nation had adopted the Medical Library Center of New York's Union Catalog of Medical Periodicals (UCMP) system to produce union lists. The informal information network of medical school librarians were discussing the rumor that NLM was negotiating with UCMP to use this system to establish a national data base of biomedical periodicals. The first indication of the validity of this rumor came to KOMRML in a letter from the Chief of the NLM Extramural Programs in May in which it was stated that contrary to any information that may have been received from any other source, only the Extramural Programs gave approval for the expenditure of funds for RML union lists. In a meeting of RML directors held at the end of October in Louisville, a proposal was made to the directors by the NLM that it sponsor a national data bank of biomedical serials using the UCMP system as a base. While the RML directors may have given approval to the creation of the data bank, unanimous approval to use UCMP was not obtained. Although KOMRML has not been informed except through unofficial summary minutes of the RML director's meeting that NLM is to sponsor a national data bank of biomedical serials, it was made clear in the second year renewal of the PHS grant that any program for the production of a KOMRML list would have to receive approval from the NLM Extramural Programs before funds could be expended for this purpose. KOMRML is, therefore, faced with revising its orientation for the production of its union list. While this delay is causing extra expense in the document delivery referral program, KOMRML participating libraries will be given the satisfaction of contributing to a national effort as well as eventually acquiring a bibliographic instrument of value to the region.

Union Catalog of Monographs

Wayne State University had published for three years a local union catalog of biomedical monographs. Although this published catalog could have been used as a base for producing a regional catalog, inquiry was made of NLM of the advisability of such a program. In a letter dated November 1968, KOMRML was informed that when MEDLARS II became operational, the possibility existed that the Current Catalog might be expanded to form a national union catalog of biomedical titles. In view of this intelligence, it does not appear advisable for KOMRML to seek funds to publish a union regional catalog of monographs or even to invest in the maintenance of a union card catalog.

Recommended Lists of Books and Journals

Wayne State University has published a list of reference, text, and monograph titles which might be distributed and used as a basis for (i) a selection instrument for clinical libraries, and (ii) defining the limitations of lending monographs. (8) Early in the year the New England Regional Medical Library (NERML) in conjunction with the Postgraduate Medical Institute developed a "core" library for hospitals. This core library has, in a matter of months, almost become a fad. Certainly before KOMRML begins to act on its own to produce its own core concept, the NERML's promotion of its core library should be explored and evaluated for adoption for KOMRML. Further, the developing of RMP information programs may produce insights into the operational needs of hospital libraries that would make this aspect of an RML program more functional. Certainly, there is no dearth of recommended lists for hospital libraries that KOMRML should invest funds to produce yet another.

Augmentation of Regional Resources

From the analysis of the document delivery program above, it is evident that the region's resources must be augmented if it is to supply at the 90% level. In 1968 it was thought a union list of serials would have been underway in 1969 which might aid in making decisions about what might be added to KOMRML's resources. Since the undertaking has not yet been accomplished, no work has been done in determining what materials should be secured nor how they are to be distributed. Such a program would require close and dependable cooperation among participating libraries, as well as an administrative mechanism to insure its continuance. The Center for Research Libraries' Scientific Serials Project can serve as a model.

Consultation Service

At the time of the planning of KOMRML the direction and responsibility the RMPs might have for information programs in relationship to libraries was by no means clear. Surveys of clinical health science libraries had already been made in many areas of the country. KOMRML surveys of hospital libraries had been accomplished for Ohio and eastern Michigan. Although hard data were not always available to present cogent or persuasive arguments, the survey revealed that in many hospitals where intentions were excellent and staff was available, the library facilities were not being operated optimumly. Two major reasons for this less than satisfactory situation can be seen. First, many hospital librarians lacked the educational background to operate hospital libraries to meet the needs of their

(8) Stuecker, Barbara. Classified checklist of medical monographs. Wayne State University, School of Medicine Library and Biomedical Information Service Center. Report No. 49. Detroit, March 1969.

institutions. The only model available to them was academic libraries whose objectives and priorities of service are different. Second, hospital health science librarians are isolated geographically from their peers and equally significant, they have no peer within their own institution to go to for technical or administrative advice or consultation. Since a KOMRML objective was to improve and equalize access to biomedical literature, the health agency libraries which serve as the main access point to the literature resources had to have assistance in formulating their programs perhaps by at least providing moral support from some outside "authority". The technique long employed by the U.S. Department of Agriculture to employ an "extension worker" to get information to farmers is far from analogous, yet there are certain qualities about the U.S. farm industry that applies to health care agencies. First, health care agencies, for the most part, have been created by a group of motivated individuals who have left a legacy of independence and self-sufficiency to the institution. A consultant to be effective does not attempt to dictate, or even try to lead, this independently minded group. His success as a consultant depends on his ability to demonstrate that changes proposed are in the self-interest of the institution. Further, lasting effects are accomplished if and when the consultant develops within the institution a sense of participation in that the institution is making a contribution by adopting modern practices that will be imitated by others. Second, the consultant must be part of an organization (i) to which he can explain problems he discovers and describe situations for which investigative work can be undertaken to solve the problems and (ii) which has experts on whom he can draw in turn for consultation and advice.

The concept of a consultant service is still a sound one and a necessary component for the development of a good RML. However, in view of the developments of the past two years, the lack of sophistication in which this part of the KOMRML program was conceived is astounding. Considering the geographic area of KOMRML and the number of institutions within the region, one or two consultants would not be sufficient. Their time would have to be spent in exhausting travel with little time to do any consulting. Another aspect is the complete failure of insight into the KOMRML administrative structure. As already reported, six of the nine service areas have operating formalized groups of health science libraries which holds workshops and seminars. The procedural aspects of KOMRML can be dealt with in this manner; consultant experts need not be used for this purpose except in certain areas of the region. Again, as reported above, four service areas have library consultants supported by RMP. These are full time jobs and obviously five more are needed.

The KOMRML consultant service as originally apprehended no longer applies. Should funds be made available to support such a service, the individual(s) employed to operate this service would act as a consultant's consultant. This by no means implies that KOMRML's consultation should be considered as the expert's expert, rather if library consultants are functioning in all nine service areas, the work of these consultants should be synthesized and analyzed to foster the objectives of KOMRML and the nation's RML network. The KOMRML consultant service might have three general functions:

1. To call regular meetings of service area consultants so that mutual problems can be identified and discussed.

2. To serve as an administrator to act as a clearing house;

   (a) To distribute reports, memoranda, etc., in a similar fashion as that used by KOMRML administration,

   (b) To act as a resource person in actual preparing or instigating investigative studies that would be applicable to the region, (9)

   (c) To serve as the "coordinator" and liaison officer for the continuing education and training of librarians without library science degrees (see next section).

Perhaps these general functions will be viewed as simple-minded next year as those conceived as consultant functions two years ago.

Instructional Program

Both surveys and the experience of interlibrary loan librarians at resource libraries have amply demonstrated that there are many individuals now working as health science librarians, particularly in hospitals, who do not have the skills or knowledge about the simple techniques of maintaining small library collections. Such skills, available at access points throughout the region, are an absolute requirement if access to the scholarly record is to be obtained. Study was undertaken during the year to determine what librarian skills are necessary to take advantage of the KOMRML system, and a plan was devised to prepare instructional units. A supplemental application has been submitted to NLM to support this program.

Non-Print Media

Librarians in teaching hospitals are frequently asked to acquire and care for audiovisual materials. There are many problems inherent in this kind of service operation. One service KOMRML had hoped to initiate was a bibliographic service and a kind of information center to assist these librarians in locating materials suitable for the machines available in their institutions. Administratively, the responsibility for servicing non-print educational material is confused. The relationship between library service and processing and servicing non-print materials as an RML activity will have to be defined in the near future. Because of the many organizational, procedural, and program problems, this part of the KOMRML program has received no attention.

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(9) One such study, by Nancy Lorenzi, Extension Library at the University of Louisville, is now in press as KOMRML Papers and Reports No. 4.

Evaluation

Every social agency must study and evaluate its effectiveness and seek to improve the methods it employs to achieve the objectives for which it was created. The RML program was designed to institute change in our library institutions. Change in social agencies is aimed at modifying the behavior of people. This seemingly obvious point needs emphasizing because many of us view social changes as purely institutional change and evaluate economic, technological, and educational inputs strictly in those terms. Whenever we talk of change, it means we have to start with the conditions as they exist. Any planning and any action must relate to social agencies now operating even if we try to circumvent them by establishing new agencies, as an RML. To restate an already made point, one of the difficulties of the national RML program has been a lack of socially understandable objectives except in terms of defining them as purely institutional functions. KOMRML from its inception realized that were it to be successful it must change library user behavior. In this situation any evaluation will have to be based ultimately on "user satisfaction". Without knowing what the existing behavior is, there is no way to demonstrate that behavior has actually changed except by inference.

While KOMRML was well aware of the need to evaluate its operations, any methods suggested before the operation began would be questionable. The only feasible approach appeared to be to set up a system and then let natural selection take its course; that is, is the system understandable and acceptable by users; does activity increase over a period of time? A distinction should be made between the process of monitoring a bureaucratic operation and evaluating its effectiveness. Certain monitoring methods had been planned of KOMRML's operation. This monitoring procedure, it was hoped, would also generate some data to aid in evaluation, or at least provide a basis for judgment about what data need be collected to begin an evaluation. As unsophisticated as this approach may appear to those experienced in creating new social institutions, it was assumed to have had the approval of the granting agency.

KOMRML was awakened rather abruptly after notification of the approval of its application by the RLM Board of Regents. As with any grant award, it was assumed that reports of activity and accomplishments would have to be made at required intervals. KOMRML, however, was not prepared for the arbitrarily designed monitoring-evaluating operational report that was to be completed quarterly. Whether KOMRML would have modified its program had it been apprised of the reporting data required is obviously a pointless question, but is brought up to indicate that KOMRML never succeeded in completing the statistical report as asked for by NLM, even in its simplified form provided in the last quarter of the year. A great deal of the time of both KOMRML and federal bureaucrats was spent discussing the suitability of the prescribed format of this quarterly report which KOMRML felt

1. Required information which was neither monitoring nor evaluating KOMRML's operation,

2. Made no provision for reporting activity of KOMRML's network, and

3. Requested information that was impossible to collect with the administrative budget provided through the grant.

Although no guarantee can be made at this time, the 1970 quarterly reports should more nearly match the NLM's expectations.

This report is merely an attempt to gain a perspective of KOMRML's first year operation and cannot be considered to be an evaluation of its administrative adequacy or its social effectiveness. A study is planned for the first quarter of 1970 to gain some insight into the functioning of KOMRML. The problem of evaluating with any kind of hard data on the usefulness of KOMRML, or, for that matter any RML, has yet to be tackled.

Investigation

As the development of the national RML program demonstrates with distinction, given a certain set of conditions (the Regional Medical Library policy statement) alternative actions are possible. If changes in regional institutions are to be expected and new objectives defined, information about more than the immediate set of conditions is useful. The more relevant information available, the better the decisions that can be made; or to say it another way, the more likely it is that the desired objectives could be achieved and the more chance that decisions, when effected, can cause improvement. There are two extremes with respect to the availability of information on the needs, requirements, and conditions of an RML operation -- we either make decisions and act without enough information, or we delay so long awaiting relevant information that the objectives change to the point where the recognizable problems disappear -- if one waits long enough, problems solve themselves. In effect, this may mean the abandonment of RMLs.

Investigative work requires a modicum of leisure to devote to thinking, planning and analyzing. While it had been hoped that such time might be available to KOMRML, it has not materialized nor does it appear likely in 1970. Unfortunately, the requirements for action by individuals and institutions is so pressing that the task of gathering data, let alone planning and designing studies, is beyond the capabilities of the individuals involved with KOMRML. The only alternative is to make decisions with inadequate information and to hope that wrong decisions are recognized and corrected before it is too late.

THE FUTURE AND ITS PROBLEMS

Although the establishment of KOMRML has demonstrated that it has caused a change in the quantity and relationships in interlibrary lending, if this were KOMRML's only accomplishment, the investment of

federal funds to create an administrative network could hardly be justified. There is considerable evidence that the cooperation which has produced the one quantitative measure of improvement for the region has also resulted in intangibles that have already had an effect on the region's library service. If this spirit of participation of the KOMRML resource libraries continues, it can serve as a basis for future accomplishments, both regionally and locally. A way to describe the intangible and imponderable effects is to relate what was required to get KOMRML's document delivery system operational.

First, before the agreement to establish KOMRML was signed, each participating institution had to decide what its responsibility is toward a community larger than itself. Second, each participating library had to examine its policies and procedures to determine how it could incorporate KOMRML procedures into its routines. This self-examination involved more than mere adherence to vaguely stated general objectives; each institution had to take action. To make decisions, information and data had to be collected; these data related not only to each institution's own operation, but also to other institutions and what their contributions might be. Without question, this caused each participating library to improve itself internally. This, in turn, provided a means for each participating library to gain a new recognizable identity within its parent institution. The service area approach to organizing the document delivery service also provided a means for the participating library to be acknowledged as having leadership responsibilities for a geographic area. Third, hospitals and health agency libraries throughout KOM for the first time had a resource library from which they felt they had a right to ask for assistance rather than feeling parasitic and defensive.

In summary, the establishment of KOMRML has promoted not only cooperation, but also competition. The latter has promoted belief and confidence that more can be accomplished than merely struggling to maintain a status quo. Certainly, KOMRML cannot take all the credit for the melioration of libraries throughout KOM; many other factors have contributed to the encouragement to implement programs with new perspectives. With but one year of operation the conditions are still tenuous, but KOMRML, at least by some, is viewed as an instrument to promote administrative reforms and new ideas. Since it is usable in many intangible ways, it needs to be protected and safeguarded.

To many, the major revelation may have a negative tone -- participating libraries are able to express in ways not possible before the complexity of library operations. The literature of any field is filled with plans and dreams of the creation of networks which will reduce the amount of energy required to accomplish specific tasks. KOMRML has demonstrated that a medical library network is possible. However, no one in the participating libraries is being misled into believing that the establishment of regular, error-free networking is just around the corner. To quote Veaner on the future of electronic networking:

> It is apparent...that the problems of networking, even in the local environment, are of no small intellectual and technical depth, and it would be folly to imagine that a large number of independent local networks are going to interact successfully on the first try. In all, many technical and economic hurdles remain... (10)

No matter what aspects of "traditional" library service are examined for regional service, we are faced with what librarians have known intuitively for a long time -- there is much repetition and routine activity in the maintenance of library service, but we lack a precise knowledge of these operations; in the total institutionalization of library functions there is an intellectual dimension and direction without which there can be no meaningful access to the scholarly record. To again quote Veaner:

> We have given up self-sufficiency in collection building; will we give up some local autonomy in technical processing to benefit from the economies of standardization: My fear is that if we do not, we shall have fewer and fewer resources remaining for service to our clientele.... Our resources for understanding and applying new technology are scarce. In measuring our success, perhaps we have done no worse than anyone else, but we are not as rich as some who can afford to recover from errors of judgment. By some means, the desired and needed national goals and priorities must be identified. (11)

KOMRML has gained some sagacity in knowing there are limits to which our resources, space, and human talent can be expanded while at the same time gaining confidence through creating constructive interdependence. Some of this confidence has to be applied to improving the means and techniques of library service, but some of it must also be applied to establishing goals and priorities that coincide and contribute, as Veaner states, to national accomplishments.

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(10) Veaner, A.B. Major decision points in library automation. Preprint... prepared for the Association of Research Libraries Automation Committee, Chicago, January 17, 1970.

(11) Ibid.

The impact and success of RMLs ultimately will be tested against its effect in the improvement of health care. As a "change agent" KOMRML has many alternatives for action, but constraints of reality do not make it possible to act on all alternatives simultaneously. We cannot fall into the trap that because we can symbolize the concept of equal access to biomedical literature, we react to these words as if they were real external stimuli. Because KOMRML is a library program, we should not distort the meaning of any event and magnify trivial happenings into momentous experiences. All libraries within KOM must respond to a larger environment than their immediate surroundings and technical competences in searching for priorities for action. (12)

1. Geography. One only need make a cursory examination of the list of institutions that have contacted KOMRML to recognize they are preponderately located in metropolitan areas. Should KOMRML perhaps reduce its service to the urban institutions in order to spend funds and human energy in contacting and assisting rural institutions? To bring dependable services to these areas will require a greater expenditure per transaction, of whatever nature, than the same transaction provided in quantity in any urban setting. Can we afford equal access by erasing geographic constraints?

2. Levels of service. We need to recognize that not all health professionals need the same level of service. Surely, providing information to assist a physician to make a decision with respect to a diagnostic or therapeutic problem has a higher priority than satisfying the curiosity of a college freshman with information for which he has no immediate practical health application. It is a common practice, or at least a policy, for librarians to expend as much time assisting the one as the other. Somehow we must, until a technology of access exists to information in some other form than stored books and journals, set qualitative criteria for establishing services.

3. Kinds of service. The sociology and the values we have placed on different institutions carry with it status. Libraries, as well as other agencies, respond to status. Services (and resources) are more often more abundantly and freely given to those who already have good services. Library services to researchers is qualitatively different from that needed by clinicians. If an RML cannot respond to the needs of different groups, ought services to certain specialities be given before others? A practical example might be: Quotas of subsidized document delivery services are already established. Does the same quota formula apply to an educational institution as to a research-teaching hospital?

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(12) The following classification of possible perspectives is taken from a paper by R. M. Morrill and R. J. Earickson, "Problems in modelling interaction: the case of hospital care"; in K. R. Cox and Golledge, etc. "Behavioral problems in geography: a symposium", Northwestern University, Studies in Geography, No. 17, Evanston, 1969, pp. 254-274.

4. Ability to pay. U.S. medicine has been based on a fee for service. Libraries have now become almost completely socialized and few services can be maintained on a fee for service basis. Although it would appear feasible that regional services could be established on a cost basis, this is not accepting the realities of our present social concepts. Taxing the rich to assist the poor is, however, an acceptable technique. Should quality, quantity and kind of service be reduced to the larger and richer institution to release resources to assist the small and less affluent institution?

5. Social distances. Geographical distances depend upon transportation; social distances are not removed with technological devices. It may not appear that health science libraries need to be concerned about such matters, however, if access to literature is to be provided, the makeup of our society must be evaluated. We must deal with minority groups who have as much right of access as majority groups. We have institutionalized health care along these minority group interests including professions such as osteopaths, as well as race and religion. Morrill and Earickson remark about evaluating hospital distances "religiously".

> ...a mental barrier is placed against a hospital operated under the auspices of a different religion, which increases the effective distance of it. Analyses... suggest that on the average Jews evaluate the distance to non-Jewish hospitals as about three times farther; Catholics evaluate distance to non-Catholic hospitals as about twice as far; Protestants evaluate Catholic and Jewish hospitals as about twice as far...(13)

Establishing a library network might indeed incorporate such data into formulating location and quality of access points.

Those involved with the administration of KOMRML are convinced that a viable organization has been established with demonstrated capabilities of providing certain services. Decisions will have to be made whether the future should be directed toward improving what we know we can do and doing more of it, or rethink our purposes and concentrate on redesigning our policies from different perspectives with the ultimate expectation that the national goal can be obtained for equal access to health information to all qualified persons.

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(13) Ibid.